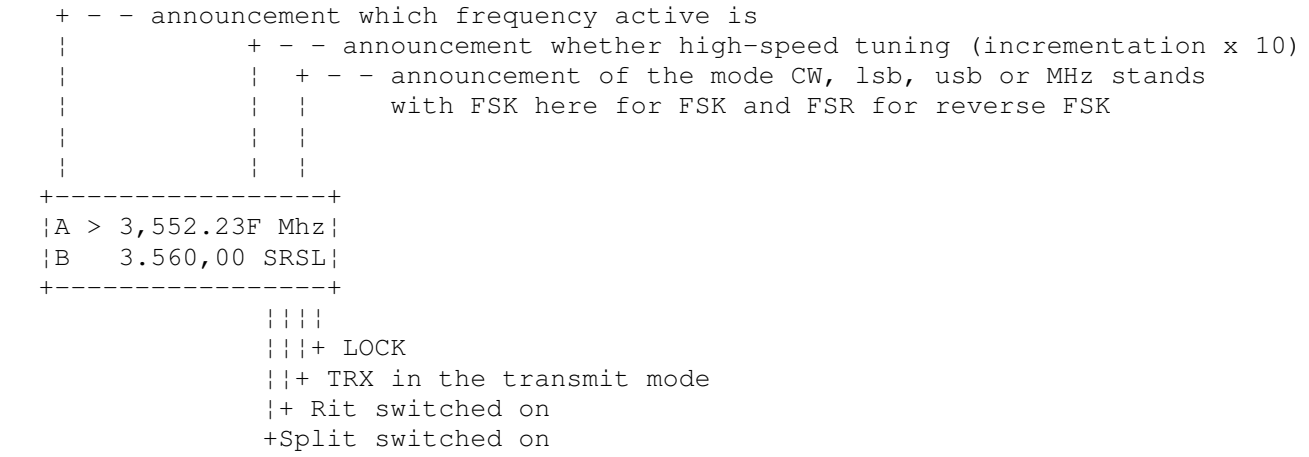
DDS DL4JAL - operating instructions

which everything in the display indicated



rotation transducer

of the rotation transducers for adjustment the frequency.
However the Keyer is activated can when sending the Keyergeschwindigkeit be changed. This new value is however not stored in the EEPROM (adjustment to the QSO partner). He remains however in the RAM of the MC to he without tension becomes stored.

Keyer:
Receipt: Frequency change in 100 steps per revolution (depending upon rotation transducer)
step = 10, 20, 50, 100 Hz.
By nearly (press key 2) step far by 10 one multiplies.

Send: Stop the Keyertempos range of values 0..255.

Keyer out:
Frequency change incrementation = 10, 20, 50, 100 MHz. By nearly (press key 2) step far by 10 one multiplies.

Power ON + key 3

it exists the possibility with power ON and simultaneous presses the key 3 the EEPROM to delete. With start of the program default values are loaded.

Default values

ZF CW = 0 MHz
ZF LSB = 0 MHz
ZF USB = 0 MHz of ZF file on all volumes above the LCD frequency + ZF incrementation = 10 MHz
timers LOCK = 1000 mSek
timers transmitter from = 500 mSek
Keyergeschwindigkeit = 127
point memory = 4 (100%)
Keyer from (on)
ZF permanently (when sending the frequency on the LCD is spent)
volume border

control key 1 + a rotation transducer

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the key 1 does not serve for adjustment some basic data. Additionally on activation of the "volume change-over" in the basic menu the volume change-over is accomplished

1. Menu option ZF CW stop:
Attitude on exact frequency (in the middle of the passage curve of the filter)
key 1 = Kursor left
key 2 = Kursor right
key 3 = abort key
4 = OK

ONE each place is stopped individually to the right to the left with the rotation transducer (0-9). Rotating motion only right around possible. Attitude up to 1 MHz of accuracy possible.

2. Menu option ZF LSB stop:
Attitude on BFO frequency
key 1 = Kursor left
key 2 = Kursor right
key 3 = abort
key 4 = OK

ONE each place is stopped individually to the right to the left with the rotation transducer (0-9). Rotating motion only right around possible. Attitude up to 1 MHz of accuracy possible.

3. Menu option ZF USB stop:
Attitude on BFO frequency
key 1 = Kursor
key 2 = Kursor
key 3 = abort
key 4 = OK

ONE each place is stopped individually to the right to the left with the rotation transducer (0-9). Rotating motion only right around possible. Attitude up to 1 MHz of accuracy possible.

4. Menu option ZFAblage stop:
Here adjusted whether the ZF is added or Subdrahiert becomes with the receipt.
When sending the ZF file does not play a role, the frequency is directly spent (only with "ZF file standard.")
Key 1 = Kursor
key 2 = Kursor
key 3 = change between 1 and 0 (1=Oszilator above 0=unterhalb)
key 4 = OK

ONE whole left place is 160m-Band to the right to the left.
Completely right place is the 10m-Band.

5.Timer LOCK = time in mSek to rotation transducers again as frequency input functions. In the display with a "L" down right indicated with rotation transducer can time be adjusted. Range of values (0,,2550 mSek). To this time goes the MC into the sleep mode.
Key 1-4 = OK ONE

6.Timer transmitter from = time to TRX again on receipt switches in the display with a "S" = sending indicated down right. (range of values 0,,2550 mSek) key 1-4 = OK ONE

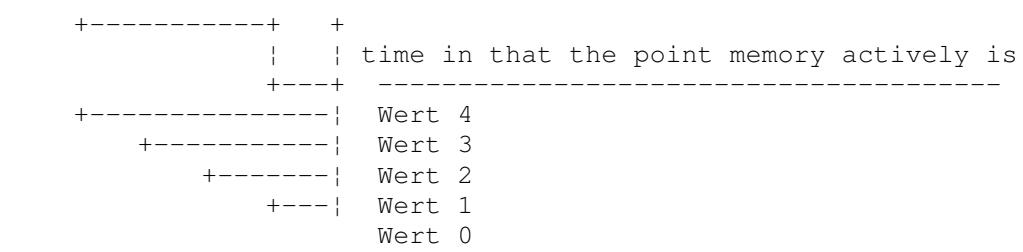
7.Keyertempo with rotation transducer adjustable range of values 0..255. Key 1-4 = OK ONE

8.Keyer out/in: Key 1 always release = OK ONE in the change

9.Punktspeicher: Range of values 0,,4
0 = OFF
1 = only in the last 25 % of the time of the expenditure for line
2 = only in the last 50 % of the time of the expenditure for line
3 = only in the last 75 % of the time of the expenditure for line
4 = in that time of the expenditure for line

key 1-4 = OK ONE

the line consists temporally of 3 points + a point length break



10.ZF-Ablage permanent/normally: = OK ONE in the change ZF file permanently = when sending and receipt release key 1 the ZF are always added or subtrahiert.(Das are always for SSB dressing importantly) ZF file normally = with the receipt the ZF are always added or subtracted. When sending the frequency without file is spent.

11-bind-border in/out = control whether the amateur frequency ranges will leave (about +/- 10 kHz)

12.FSK in/out = frequency shift keying when sending. With the line paddle entrance the transmitter is switched on and activated with the point paddle the frequency shift keying. Low level at the point paddle entrance = transmitter frequency + 170 MHz. (condition "FSK" is not stored in the EEPROM)

13.Bandumschaltun in/out. In this menu option the volume change-over can be activated by hand. The expenditure of the volume takes place at the same pins (only visible during "volume change-over")

14. - 24. Volume change-over
160m - 10m of OK ONE = release the key 1 expenditure of the tape number on the Pin's of the volume recognition.

BAND	**DECIMAL**	**BINARY**
160m	= 0	0000
80m	= 1	0001
40m	= 2	0010
30m	= 3	0011
20m	= 4	0100
17m	= 5	0101
15m	= 6	0110
12m	= 7	0111
10m	= 8	1000
Transv 6m	= 9	1001
Transv 2m	= 10	1010
GENERATOR	**= 11**	**1101**

thus a IC is to be used at the best for decoding.
Additionally naturally also the appropriate frequency is stopped.

25.Abbruch = abort of all functions

key 2
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key once press: switch to nearly = frequency steps x 10 and again press: Nearly out. Always works in the change. Announcement in the display a large "F" behind the active frequency.

Key of 2 + rotation transducers
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key pressed keep + rotation transducers turn: adjust the incrementation during the frequency tuning.

Key = OK ONE the value also in the EEPROM stored (initial value with power on)
incrementation = 10, 20, 50, 100 MHz of

key 3
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key release to press and again release: Frequency A and B is put down into the Quickspeicher (EEPROM). All 10 storage locations per volume are occupied oldest storing are overwritten (the number of the used place is indicated 0,,9).

Key 3 + rotation transducer
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key 3 push and hold and rotation transducers turn:
All storage locations are indicated to 0 to 9. After the key A and B release frequency are taken over. There is also the possibility of the abort. Function "Rit" switched off if is activated.

Key 4

Only key 4 press permits the frequency shift keying with FSK to turn around. This function is possible only with activated FSK. The announcement right above changes in FSR.

Key of 4 + rotation transducers

A/B: Exchange of A-frequency with b-frequency A = B: A-frequency is A after B is actively copied. B-frequency is B after A is actively copied.

Split:
A-frequency is the b-frequency for sending is actively taken.
B-frequency is the A-frequency when sending is actively used.
Possibly adjusted "Rit" is deactivated. Announcement in the display "S" down quite.

Rit:
The active frequency is copied into the andrere frequency. The A-frequency is the transmitter frequency and the b-frequency serves as receipt detuning. Possible adjusted "Split" is deactivated. "A/B" is not possible. "A = B" is possible. Announcement in the display "R" down right.

Dauerton: Steady tone:
It becomes on sending geschalten. This point serves for sends one continuous of signal (abort with key 4). With switched on Keyer e.g. the antenna matching can be optimized with this point.

Bandfreq. spei.: Wake up ferguency

With this menu option the momentarily indicated frequency is put down in the tape change memory. This frequency is loaded automatically with the change into this volume or with PowerOn from the EEPROM.

Additional functions

- with a tape change used A and b-frequency in the EEPROM is stored.
- the frequency excess in the volume is controlled. Excess of 10 kHz is possible. (is now disconnectible)
- RTTY is possible (menu key 1 "FSK"). At the entrance pins for the Keyer at the line entrance of the transmitters is switched on and shifted at the point entrance the frequency (everything l-actively). The frequency departure is 170Hz. switching to Reversbetieb with key 4.
- Pactor i and Amtor are also possible signal

generator enterprise

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pin 3 of the volume recognition against mass. The building group goes into the signal generator mode. The last volume frequency is stored in the EEPROM. The A and b-frequency are loaded with 10.0 MHz. The key 1 has now another function. The key briefly pressed switches the incrementation to 1kHz and with repeated to press goes the incrementation on 100kHz. we the key again pressed are again 10Hz incrementation adjusted. With this fast change-over it is to be adjusted possible each frequency from 0 to 34 MHz with 10Hz dissolution with few turns at the rotation transducer. The functions "A/B", "A=B" on the key 4 are also still possible. The ZF file is deactivated. The display additionally to A and b-frequency down on the right of the incrementation one shows. The frequency is spent directly by the AD9850, thus without ZF file.

Now also the Wobbeln is possible. Description in the file Wobbeln.txt.

73 Andreas Lindenau DL4JAL